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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

PRELIMINARY REPORT

Insect Control Project

Spring 1927

Beaverhead & Deerlodge

National Forests

Montana



District 1
Missoula, Montana
July 9, 1927

P R E L I M I N A R Y R E P O R T

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*Copy sent
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Mr. Eenden (2)*

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July 9, 1927.

C. L. Webb,

In Charge

This report covers rather briefly an account of the Insect Control project carried out on the Beaverhead and Deerlodge National Forests during May and June of 1927. The report is intended to be only a preliminary one since a complete, concise and accurate report cannot be made at this time owing to several reasons. Vouchers are not yet all through and books balanced. Cost figures are not completely worked up. Daily and weekly production records are not fully in shape for proper analysis, pictures for illustrative purposes are not developed and printed and time is not available at this time of year for making the report desired and needed. It is felt the final report should include a discussion of how the work was handled, our experience and conclusions. There are a number of changes to be recommended in methods and organization and in forms and methods of keeping records. All production records of this season and cost records as well, need to be fully worked up and analyzed in order that the results may be set forth in the final report and the maximum benefit thereby gained. It is the plan of Associate Entomologist J. C. Evenden and myself to combine our reports and make one complete report on the project. It is believed desirable that this be delayed until the season of most active field work has passed and the report be then prepared and submitted not later than December 1. There will be considerable computations and clerical work necessary on the records kept on the job before a complete and accurate analysis and record can be submitted. The figures submitted herein are approximate and are subject to change in the final report.

The spring of 1927 came on late, in the Big Hole country, weather and snow conditions were bad, residents of the section claiming the season to be three weeks to one month late.

Chief Lumberman Crossley and I arrived at Wisdom May 5. On May 6 we secured a 4-horse team, three or four men and a cook, and started moving a camp out to Battlefield Ranger Station. For the first five miles we encountered mud a foot deep and the last seven miles about three feet of solid snow in the road, making it necessary to tear down fences and take to the open ridges and fields for most of the way. All hauling up to about June 10 had to be done with 4-horse teams, and small loads at that. Hauling distance averaged 12 to 18 miles one way, and for all save three camps the equipment had to be transferred to pack trains and packed distances ranging from two to nine miles. Ten camps in all were established. Nine was the most running at any one time. Deep snow held up spotting and treating for the first two weeks at the start and

delayed work in the farther-back country so long that we were unable to get back this season into some of the places we should have worked. The farther-back work this year was only about four miles up Mussigbrod and Plimpton Creeks. Snow was encountered here in places nearly up to the last. From May 5 to 31, there were but three days on which we did not have either rain or snow, or both. Some days as much as eight to ten inches of fresh snow fell in the woods. Men stayed through it surprisingly well, but their efficiency was greatly impaired by reason of such weather conditions. After the weather cleared up, from about June 10 to 30, men did not stay so well, lots of other work opening up and they commenced to drift. In a way, and it pertained to two or three camps in particular, after June 10 it was a case of having three crews, one coming, one working, and one going. This did not count for efficiency at these camps.

A number of Forest officers from various parts of District 1 and one from District 4 were assigned to the job. Associate Entomologist, J. C. Evenden, was on the job a large part of the time. None of these men shirked work or responsibility, but all worked hard and earnestly in an effort to make the thing a success. All kept up a good spirit under most disagreeable conditions and did all they could to keep things moving.

The building-up process was slow. Equipment and supplies could not be transported with rapidity. A 55-mile truck haul from Divide to Wisdom was slow on account of road conditions and the team haul was slow and expensive. We could not advance faster than snow conditions in the woods would permit. Actual spotting was started May 12 with three crews, and as we advanced with camps the spotting force was built up to a maximum of eight spotting crews of five men each. The first treating crew was put on May 15 and these were gradually increased to a maximum of 20 crews consisting on the average of seven men and one horse to each crew. From one to three 4-horse teams were engaged May 6 to June 10, the average being two of these outfits. Two packers with 10 to 12 head of horses were employed a large part of the time. The maximum of nine cooks and five flunkies was employed. As an indication of the progress in treating, the following is given:

May 21	Total trees treated to date	617
May 28	" " " " "	2,112
June 4	" " " " "	4,637
June 11	" " " " "	7,647
June 18	" " " " "	11,905
June 25	" " " " "	16,831
June 30	" " " " "	17,418

These figures indicate that the failure was made in May and that by the first of June we had just shaped the organization up for production. Having nine camps out, it was necessary to commence tearing them up on June 26 in order to have everything cleaned up and in the warehouse by night of June 30. Perhaps a little more could have been accomplished by a little faster spreading out at the start but, considering the expense of doing so at that time under existing road and weather conditions, I felt it would result in too great an expenditure of money considering the results to be obtained therefrom. While we did not spend all the money allotted, I felt it better business to plan on what could be done in the most economical manner, rather than spend funds on which there was little hope of getting value received. Had labor conditions been better during the latter end so as to have kept the full 20 crews at work, the larger portion of money would have been spent and to a pretty good advantage.

The project was a failure in a sense, since it was originally intended to spend \$50,000 and dispose of 30,000 trees. Allotment was reduced from time to time for use elsewhere until it was cut down to about \$42,500. Of this about \$31,500 was spent and 17,418 trees destroyed. For the money spent and trees destroyed, I do not count it exactly a failure, considering the conditions which were met throughout the first month we were on the job.

A brief summary of the area and trees worked on the two Forests follows:

<u>Beaverhead</u>		<u>Deerlodge</u>		<u>Total</u>	
<u>Acres</u> <u>Spotted</u>	<u>Acres</u> <u>Treated</u>	<u>Acres</u> <u>Spotted</u>	<u>Acres</u> <u>Treated</u>	<u>Acres</u> <u>Spotted</u>	<u>Acres</u> <u>Treated</u>
23,660	21,208	1,560	1,520	25,220	22,728
<u>Trees</u> <u>Spotted</u>	<u>Trees</u> <u>Treated</u>	<u>Trees</u> <u>Spotted</u>	<u>Trees</u> <u>Treated</u>	<u>Trees</u> <u>Spotted</u>	<u>Trees</u> <u>Treated</u>
17,707	15,737	1,643	1,681	19,350	17,418

Costs Itemized
(Subject to slight change)

Net payroll, including men and horses	\$14,543.13
Subsistence (excluding transportation)	8,524.85
Commissary	595.30
Horse feed and shoeing	585.23
Transportation	2,259.24
Equipment and supplies	3,151.85
Travel (approx.)	1,586.56
Miscellaneous expense	<u>253.84</u>

Approximate total expenditure from allotment \$31,500.00

Contributed time, including Webb's salary May and June	<u>3,023.04</u>
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Total - - - - - \$34,523.04

Total trees treated	17,418
Cost per tree	\$1.98

It will be noted Equipment and supplies were purchased in the amount of \$3,151.85. This includes chains, tongs, singletrees, axes, shovels, cant hooks, wedges, sledges, saws, hammers, mattresses, portion of truck purchase, etc., all of which should not be properly chargeable to this job. Such equipment should last for five seasons of two months and, in determining actual cost, only depreciation at 20% should be figured. There was left a considerable food supply after cleaning up the nine camps. This was made up into case lots and sacks at the warehouse and inventoried. I have not the inventory at hand but estimate there is at least \$1000 in value of subsistence supplies in canned goods, sugar, cereals, flour, etc., which are not quickly perishable and can be used on other work. After allowing for depreciation only, and credit for such food supplies left, the cost is reduced \$3,521.48, or about 10%, making the cost per tree \$1.78, which covers all spotting, treating and overhead expense. My opinion is that through changes in organization and methods the cost of this work can be reduced to \$1.25 per tree. A complete discussion of this will be taken up and recommendations made in the final report referred to heretofore in this report.

For work done on the Deerlodge east of Pintlar Lake there was spent approximately \$1,399.50 and 1681 trees were treated, making a cost of approximately \$.83 per tree. This was easy ground to work and camp was moved in and out with a truck. No packing was required, as this was serviced with

the Ford 1/4-ton truck. These costs are included in the above totals which are totals for the project.

Summarizing costs are as follows:

Deerlodge, spotting and treating	1,681 trees at \$.83	\$1,399.50
Beaverhead	" " " 15,737 " " 1.88	29,602.06
Value of equipment and food supplies remaining		<u>3,521.48</u>
Total expenditure		\$34,523.04
Contributed		<u>3,023.04</u>
Spent from allotment		<u>\$31,500.00</u>

There is attached a sheet showing approximately the subsistence costs per meal at various camps, ranging from \$.46 to \$.62 and averaging \$.51. These figures are not accurate between camps, since the item of subsistence transportation was prorated rather than actually worked up as it is hoped to do in the final report.

All work was done on day basis. Contracting cannot be done on a tree basis, owing to variation in size, and it is planned from our records kept this season to work out a scheme based on a diameter-inch basis whereby the work may be contracted and paid for on a scale equitable to both sides. This will also be covered in the final report.

Respectfully submitted,

C. S. Webb.
In Charge Insect Control.

Missoula, Montana
July 9, 1927.

Beaverhead Insect Control - 1927
 Subsistence Costs
 Preliminary Figures
 Subject to Correction.

Camp	No. Meals Served	Subs. Total	Supplies Per Meal	Gross Wages Cooks & Flunkies Total	Prorated Share of Transportation Per Meal	Total Meal Costs Total	Per Meal
Battlefield	1,413	444.76	.314	137.50	.097	714.26	.505
Clam Valley	1,055	409.73	.388	127.10	.12	656.43	.622
Headquarters	4,040	1,216.27	.301	288.85	.0715	1,862.12	.460
Johnson Creek	2,429	710.81	.292	237.49	.098	1,156.80	.476
Moose Creek	199	66.31	.333	35.29	.177	121.35	.610
Musigbrod Lake	1,418	402.76	.284	156.29	.110	677.05	.478
Pintlar Lake	956	306.36	.321	100.00	.104	496.86	.52
Plimpton Sawmill	1,371	403.39	.295	152.08	.111	673.47	.49
Thompson Creek	1,814	586.79	.323	220.14	.121	980.18	.54
Tie Creek	1,971	666.22	.338	296.67	.15	1,159.09	.588
Totals & Averages	16,666	5,213.40	.313	1,751.41	.105	8,497.61	.51